UTILIZATION OF AGRICULTURAL INFORMATION BY
SOYBEAN FARMERS IN NIGER STATE, NIGERIA

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ABSTRACT
The findings revealed that, at various stages of the farming season, soybean farmers utilized agricultural information on how to harvest soybean (mean = 4.30 and standard deviation [SD] = .640), closely followed by on seed treatment before planting (mean = 4.20 and SD = .600) and on how to control pests and diseases (mean = 4.20 and SD = .775). The study further showed that soybean farmers utilize more agricultural information at the beginning of the farming season, particularly, at the preparation stage (mean = 4.60 and SD = .490) and closely followed by time of harvest (mean = 4.40 and SD = .918). The study also revealed that soybean farmers in Niger State, generally utilized agricultural information (mean = 3.61 and SD = .75) to some extent. However, certain information on how to clean and store soybean to meet standard market requirements (mean = 4.10 and SD = .701); on effective market for soybean (mean = 4.00 and SD = .63) and on pest and disease control (mean = 4.00 and SD = .634) were utilized to a great extent. The study, therefore, recommended that the Ministry of Agriculture at the State and Local Government Area (LGA) levels should adopt strategies that will allow for all inclusive information dissemination to farmers at all stages of soybean farming. Such measures will strengthen the current level of utilization in the study area.

Keywords: Agricultural information, Information, Niger State, Soybean farmers, Utilization.

INTRODUCTION
Utilization of information is of utmost importance to the growth and development of the individual and the society at large. However, it is one thing to access useful information; it is a different thing to put that information to proper use. People can only use information that is at their disposal, which is why information dissemination is essential in the first place. Information utilization according to Kari (2010) encompass decision-making, problem solving, forming a personal viewpoints or sharing information with others to create new knowledge. Wilson (1999) views information use as the physical and mental acts involved in adding new information to one’s existing knowledge base. Information use may involve practical actions such as highlighting sections in a text as well as comparing new information with what is already known. This exploitation of knowledge acquired through studies, experiences or instructions to satisfy a pressing need is what information utilization connotes.

Information utilization is one of the three core elements of information behavior which are: information needs, information seeking and information use. While information need arises from the yearning to satisfy basic human needs such as food, shelter, security and skills, information is sought after (seeking) so that it can be used (utilization) to meet those perceived human needs (Adebayo, 2017). As such, agricultural information utilization examines what farmers do with information after they have obtained it. For farmers, the utilization process starts with a perception of the need for information to improve productivity. The identified need will prompt a search for relevant information (the choice of channels or sources of information.
may differ from one farmer to the other based on their literacy levels, socio-economic status, geographical location and the specificity of the need at hand). The information obtained becomes useful only when it is utilized correctly and at the right time.

No one categorically claim to know all the information need of farmers, especially in an information-dependent sector like agriculture, where there are new and rather complex problems facing farmer every day. Tantisantisom (2011) however, posited that providing the information that farmers did not actually need may cause a failure of dissemination programmes. In two separate surveys to evaluate information requirement and user satisfaction of farmers in Thailand, it was found that information related to the use of fertilizers, organic farming and soil improvement were highly needed. Information regarding pest management and produce market price were also requested by the majority of farmers. In both survey the use of insecticide, financial management and weather information were not on high demand. Notable is that information related to the use of insecticide and pest management was mostly requested from the village that had suffered from pest problems in the past. Therefore it was assumed that current information need has a link with previous problems encountered by farmers. Likewise, the need for certain type of information at the present may be implied to predict the need for similar type of information in the next farming season.

In a separate study, Nkechi and Oyemike (2015) found that the type of agricultural information mostly needed by literate women in Ihiagwa autonomous community Imo State, Nigeria is the prices for agricultural goods followed by market for wholesale and retail of agricultural produce. Interestingly, a study by Funom (2018) observed that soybean farmers in Niger State utilize agricultural information less at the post-harvest and this is dependent on how information is disseminated. Meyer (2003) had earlier confirmed that farmers in Africa have the need to know acreage of their farmland and how their crop grows. They need to know each species of bug or pest that may destroy their crop and how the wind, the heat and the various soil types can affect their productions. The extent to which farmers are able to apply this diverse information to farming activities is what differentiates one farmer from the other. Farmers’ information need is therefore insatiable. Yet, it is safe to assert that their need revolves around information on weather conditions, pest and disease control, market locations, improved planting materials, basic farm inputs (fertilizers, agro-chemical), enhance farming techniques, credit facilities and agricultural insurance and more. What they do with this information after obtaining them is what agricultural information utilization entails.

Adio and Ogunmodede (2012) agreed that information use varies among individuals and groups depending on their information needs and socio-economic dictates. It is true that even if new and more productive technologies are available, farmers might never get to utilize them if they lack information about their existence. Acknowledging this fact, Opeke and Odunlade (2011) affirmed that the major determinants of information use are first, a perceived information needs and secondly, the awareness of its existence. In theory, it is assumed that the more information is available, the more it is likely to be used (Lawal et al., 2014). It is also true that information may likely not be used in spite of its availability and accessibility. This argument concurs with Odini (2014) who observed that even though there is a wide range of innovative agricultural information and farming practices available to farmers in many part of the world, there is still little evidence that the increased availability of information is being effectively utilized in Kenya. Equally, the slow growth rate of agriculture in Nigeria (largely attributed to continuous traditional farming practices) may not necessarily indicate the non-existence of agricultural information but probably to non-utilization by a majority of farmers (Soyemi and Haliso, 2015).
Quality of life for farmers is not just about their physical well-being alone but it is a construct that embraces other facets of their social, economic and cultural lives as well. Soybean farmers like any other peasant farmers want to enjoy good financial and social status, enjoy rich cultural experiences and raise a healthy family. However, these aspirations have continued to elude soybean farmers in Niger State, probably due to a variety of factors including major disease outbreaks and pest problems coupled with market fluctuations and a lack of financial capacity.

The aforementioned challenges may largely contribute to the perceived poor productivity of soybean farmers. Unfortunately, inadequate utilization of agricultural information may be partly responsible. This is in spite of the critical role agricultural information play in ensuring agricultural productivity. Therefore, could soybean farmers’ quality of life be a result of possible inadequate use of agricultural information. The study therefore examined the role of agricultural information utilization on soybean farmers in Niger State, Nigeria.

Studies have argued that the value of any piece of information can only be derived from its use (Lawal et al., 2014). The extent to which information users are able to utilize information determines its usefulness, because information by itself is worthless and cannot solve problems except when used or applied properly (Boon, 1992). A study by Soyemi and Haliso (2015) found that one major factor responsible for poor income generation among rural women is the non-use of relevant agricultural researched information at their disposal. Their findings show that women in agriculture use more of information that relates only to market location and farm implements. They pay less attention to other critical information that could increase their revenue base by boosting quality and level of production.

Lawal et al. (2014) reiterate several instances where information generated for farmers is not used for reasons that include poor choice of communication media, the time allotted to airing agricultural programs, the language used in communicating and the attitude of the farmers in general. Despite these constraints, the use of information within the agricultural sector will undoubtedly continue to attract more attention both at government’s policy level and by private and non-governmental organizations. Because wherever they are, farmers will definitely need information, as long as the success of what they do to live a good life hinges on that piece of information.

According to Fawole (2008), the utilization of available information among pineapple farmers is influenced by four demographic characteristics such as: age, gender, marital status and education have influence on pineapple farmers’ sources of information. While gender is significantly related to agricultural information utilization; education and farming experience are associated with pineapple farmer’s contact with extension agents. His findings suggested that as farmers’ education level improves, they are more likely to seek and utilize information; and constantly improving their knowledge base will allow them to share more information with their fellow farmers.

In a related study on the information seeking behavior and utilization of rice farmers in Ejisu-Juaben municipality of Ashanti Region in Ghana, Acheampong et al., 2017) revealed that rice farmers relied on interpersonal sources of information. They least trusted their personal experience as they admitted they could not depend on it if they have to improve the level of productivity. Most of the information received and utilized was on agronomic practices with less information received on post-harvest activities. Agricultural extension agents must include post-harvest issues in their training package so that farmers can be effective at each stage of their production. The major constraints identified were inadequate extension agents and lack of
information service centers. Thus, it is important for Government to improve access to extension services by hiring more extension workers.

A study by Olaniyi et al. (2011) suggested that the level to which people can progress in whatever they are doing depend largely upon their access to accurate and reliable information as well as their perception of utilization of available information. They affirmed that for any true progress to take place in agriculture, farmers must know, understand and act on available information. They concluded that, in order to solve the problem of food insecurity in Nigeria, the utilization of agricultural information must be of paramount importance.

More studies suggest that the effect of improvement in agriculture on poverty alleviation is highly positive (Bălășescu and Dovlea, 2016; Dethier, 2012; and Mellor, 2001). Mellor (2001) went as far as arguing that it is not economic growth in general that reduces poverty in developing countries, but the direct and indirect effects of growth in agriculture. Earlier in their study of poverty in India, Datt and Ravallion (1998) find that higher farm productivity reduces both absolute as well as relative poverty. This is partly due to a direct channel of higher household income operating in the short run and partly due to indirect channels, such as higher wages and lower food prices in the longer run. However, improvement in agriculture cannot be attained without adequate use of relevant agricultural information.

Consequently, improving the quality of life of farmers cannot be isolated from enhancing agricultural production. According to a report by the International Food Policy Research Institute [IFPRI] (2014), agricultural technologies will have the greatest impact on food production if and when utilized in combination with each other. Using a model that assessed how 11 new technologies could impact agricultural productivity and food security by the year 2050, the Institute found that the number of people at risk from hunger could be reduced by as much as 40% and food prices could be reduced by almost half. Therefore, it is no longer news that government agencies and other agriculture-development partners are making substantial investments on production enhancement technologies and information provision on technology adoption. Normally, such investment is justified by the fact that farmers who utilize the information provided are able to make better decisions in their farming activities. The Technical Centre for Agricultural and Rural Cooperation [CTA] (2009) avowed that in rural Nigeria, as in many other developing countries, good agricultural information can make all the difference to a household’s revenue and food security. Therefore, if farmers make use of available information it is expected to better their quality of life.

Information utilization arouses people from the fear of change to a desire for better things. Such desire compels individuals to re-evaluate their QoL against a more positive future prospect. The knowledge gathered from these self-evaluations becomes a fundamental tool for self-improvement and change, the same is true for farmers as they apply agricultural information in their daily farming operations. They are more ready than others to accept new ways of doing things and living life. These individuals, who may have significant level of influence on others, can easily become the target of suspicion and jealousy among those who are not so eager to change. However, if the new ways appear to profit those who have embraced them, then other members of the community may come to accept them too. Eventually, commonly held beliefs can then shift and give way to the flow of new ideas that offers a better life (FAO, 2017). In due course, those who were first to try-out the new ways may become the reference for others to emulate and even gain more social influence in their communities. So, instead of being regarded as a threat to established ways of farming, agricultural information utilization could actually lead farmers to a better quality of life.
A number of literature have shown that more educated farmers are the first to make use of information on new or improved seeds, tillage practices, fertilizer application, and animal breeding (Besley and Case, 1993; and Abdulai and Huffman, 2005). Utilization of agricultural information (such as those embedded in technologies) is positively related to a farmer’s education, financial status and the utilization of the same technology by neighbors (Foster and Rosenzweig, 2010). Although this does not establish causality, it suggests that low education, lack of credit and other externalities could be major barriers to agricultural information utilization. Famers’ inability to utilize information has been cited as a barrier to the success of any information dissemination service. Majority of farmers in Nigeria are poor small-scale traditional farmers whose poverty is not as a result of growing small scale but because they lack capacity to utilize valuable information to enhance productivity (Lucky and Achebe, 2013). Soyemi and Haliso, (2015) confirmed that the justification for agricultural extension services by various governments is evident in the use of the information by farmers to increase their farm size, access credit and inputs; increase production and revenue and reduce the rigors of farm work. So did Zaid and Popoola (2010) who concurred that information utilization plays a critical role in enhancing the quality of life of rural women.

Accordingly, the Food and Agriculture Organization (2013) maintained that one of the key role the new ICTs can play as an instrument of change is in the management and sharing of agricultural information. Smallholder farmers, involved in agriculture, have a huge advantage when the right ICTs are induced into the agriculture value chain. Access to and use of the right information at the right time gives them the capacity to make informed decisions that affect their livelihoods and thereby play a major role in ensuring food security. New ICTs are enabling more effective use of information, which is significantly improving farming processes by managing inputs, throughputs and outputs from farms, postharvest processing and marketing.

A typical example in Eastern Sri Lanka showed that some 3,000 rural households were empowered through information provision by a Japanese funded project. Report showed that the use of the new information has enabled farmers to replace mostly manual traditional methods of agriculture with efficient crop-tending practices. The application of the knowledge led to the use of agricultural machines (tractors, power tillers, rice reapers and threshers) that boosted labour efficiency and opened up an opportunity for tangible development that is beyond subsistence agriculture in those areas United Nations Industrial Development Organization [UNIDO] (2013).

In Nigeria, the training of farmers in the safe use and handling of pesticides has created widespread awareness about the dangers of pesticide misuse. As a result, the number of reported cases of chemical-related injuries has drastically reduced (IITA, 2008). Farmers’ appropriate use of agricultural information on pest management and control could be seen to guarantee safety from the health hazards associated with agro-chemicals use. Equally, at a mega field day organized by PROSAB in Kwaya Kusar LGA of Borno State, many farmers gave oral testimonies on how the use of PROSAB’s improved technologies and management practices contributed to improve their productivity and livelihoods. Seventy six (76) percent of farmer groups utilizing some or all of these improved agricultural technologies indicated that they achieved yield increases of over 100 percent. They affirmed that the new opportunities for improved livelihoods included not only improved food security but other benefits, like: improved household nutrition (largely derived from soybean processing and utilization), improved human health care by being able to afford genuine medicines and increased expenditure on school fees and housing international Institute for Tropical Agriculture [IITA]
(2008). From these indications, one may conclude that the utilization (or otherwise) of agricultural information could have significant influence on the quality of life of soybean farmers.

Nevertheless, certain factors could influence farmers’ ability to effectively utilize agricultural information. Ibok et al. (2015) investigated the factors influencing the utilization of agricultural extension technologies by yam farmers in Yakurr LGA of Cross River state, Nigeria. Their findings showed that; level of education, social status, and gender differences were the main factors that had a significant influence on yam farmers’ ability to utilize agricultural extension technologies in the study area.

**MATERIALS AND METHODS**

**Sampling Techniques**

A survey research design was adopted for the study. The population consists of 25,600 farmers in Niger State, which include all soybean farmers in the study area. The sample size of the population was 1075. A multi-stage sampling technique was used to select appropriate sample size for the study. In the first stage, purposive sampling technique was used to select three (3) Local Government Areas (LGAs) under the Niger State Agricultural and Mechanization Development Authority (NAMDA). In the second stage, stratification of the three (3) LGAs into four (4) blocks (extension blocks) was carried following NAMDA’s table. In the third stage, a random selection of respondents from the four (4) blocks was carried out in proportionate to the sample size.

**Method of Data Collection**

A structured questionnaire titled “Agricultural information utilization questionnaire (AIUQ)” was used as instrument to collect data from the respondents. The questionnaire has four sections A-D. The questions were tested for validity and reliability using the cronbach’s alpha test. The distribution and retrieval of questionnaire was carried out by the researcher with assistance from two (2) extension workers and some traditional lead farmers who played a key role in selecting a number of farmers for the survey. This is appropriate because it helps to achieve the set objectives of the research.

**Analytical Techniques**

The questionnaire was analyzed using descriptive analysis such as frequency count, percentage distribution, mean and standard deviation.

**RESULTS AND DISCUSSION**

**Types of Agricultural Information Utilized by Soybean Farmers**

Table 1 show that respondents agreed that all the types of agricultural information identified in this study are utilized by soybean farmers (mean range: 3.80 – 4.30). The results of Table 1 shows that the highest type of agricultural information utilized is information on how to harvest soybean (mean = 4.30 and standard deviation [SD] = .640), closely followed by information on seed treatment before planting, (mean = 4.20 and SD = .600) and information on how to control pests and diseases, (mean = 4.20 and SD = .775). Ranked low in terms of mean score were information on prices of soybeans (mean = 3.80, SD = .873) and information on effective markets for soybean (mean = 4.00 and SD = .633) which are both at the post-harvest stage. That the findings showed that a greater percentage of the respondents utilized more information during the harvesting stage is consistent with Bonabana-Wabbi et al. (2006) who observed that there is the need for farmers to utilize more information at this stage in order
to minimise losses from pest and disease problems which generally exceeded losses from poor soil, drought, and inferior planting material altogether.

**Time of Utilization of Agricultural Information**

Table 2 revealed that soybean farmers use more of agricultural information during the preparation stage (mean = 4.60, and SD = .490), closely followed by harvesting stage (Mean = 4.40 and SD = .918). The table shows further that soybean farmers utilize agricultural information less at the post-harvest stage (mean = 3.80 and SD = .873) and at the planting stage (mean = 4.0 and SD = .895). This implies that, the time agricultural information is utilized by most farmers is at the preparation stage. According to Ibitoye (2012), the preparation stage is the time more farmers want information to be able to access credit and loans, which according to him, has direct implication on the utilization of agricultural innovations. These findings are also consistent with Enakrire and Oyenania, (2007), who affirmed that improving conditions for agricultural production can be attained through use of timely information for determining optimal planting and harvesting time, as well as locating storage and sources of surplus.

**Table 1: Types of Agricultural Information Utilized**

<table>
<thead>
<tr>
<th>Agronomic practices</th>
<th>Types of agricultural information utilized</th>
<th>SA F(%)</th>
<th>A F(%)</th>
<th>U F(%)</th>
<th>D F(%)</th>
<th>SD F(%)</th>
<th>$\overline{X}$</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation Stage:</strong></td>
<td>I use information on soil and weather conditions for Soybean production</td>
<td>431(40.1)</td>
<td>429(39.9)</td>
<td>108(10)</td>
<td>107(10)</td>
<td>0(0)</td>
<td>4.10</td>
<td>.943</td>
</tr>
<tr>
<td></td>
<td>I use information on how to till the soil</td>
<td>430(40)</td>
<td>323(30)</td>
<td>322(30)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.10</td>
<td>.831</td>
</tr>
<tr>
<td><strong>Planting Stage:</strong></td>
<td>I use information on seed treatment before planting (how to spray with fungicides to reduce fungal attack)</td>
<td>322(30)</td>
<td>646(60.1)</td>
<td>107(10)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.20</td>
<td>.600</td>
</tr>
<tr>
<td></td>
<td>I use information on planting depth and planting spacing</td>
<td>321(29.9)</td>
<td>430(40)</td>
<td>324(30)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.00</td>
<td>.775</td>
</tr>
<tr>
<td><strong>Post Planting Stage:</strong></td>
<td>I use information on how to control pests and diseases</td>
<td>430(40)</td>
<td>429(39.9)</td>
<td>216(20)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.20</td>
<td>.750</td>
</tr>
<tr>
<td></td>
<td>I use information on fertilizer types and application</td>
<td>431(40.1)</td>
<td>428(39.8)</td>
<td>108(10)</td>
<td>108(10)</td>
<td>0(0)</td>
<td>4.10</td>
<td>.946</td>
</tr>
</tbody>
</table>

Note: F(%) = Figures in parenthesis represents percentage of the total frequency. Strongly Agreed [SA] = 5; Agreed [A] = 4; Undecided [U] = 3; Disagreed [D] = 2; Strongly Disagreed [SD] = 1.
### Table 1: Types of Agricultural Information Utilized Cont’d.

<table>
<thead>
<tr>
<th>Agronomic practices</th>
<th>Types of agricultural information utilized</th>
<th>SA F(%)</th>
<th>A F(%)</th>
<th>U F(%)</th>
<th>D F(%)</th>
<th>SD F(%)</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Harvesting Stage:</strong></td>
<td>I use information on how to harvest soybean</td>
<td>430(40)</td>
<td>538(50)</td>
<td>107(10)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.30</td>
<td>.640</td>
</tr>
<tr>
<td></td>
<td>I use information on when soybean can be harvested</td>
<td>322(30)</td>
<td>645(60)</td>
<td>108(10)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.10</td>
<td>.832</td>
</tr>
<tr>
<td></td>
<td>I use information on how to clean and store soybean grains to meet standard market requirements.</td>
<td>322(30)</td>
<td>537(50)</td>
<td>216(20)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.10</td>
<td>.701</td>
</tr>
<tr>
<td></td>
<td>I use information on effective markets for soybean</td>
<td>215(20)</td>
<td>644(59.9)</td>
<td>216(20)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.00</td>
<td>.633</td>
</tr>
<tr>
<td></td>
<td>I use information on prices of soybeans</td>
<td>214(19.9)</td>
<td>537(50)</td>
<td>216(20)</td>
<td>108(10)</td>
<td>0(0)</td>
<td>3.80</td>
<td>.873</td>
</tr>
</tbody>
</table>

Note: F(%) = Figures in parenthesis represents percentage of the total frequency. Strongly Agreed [SA] = 5; Agreed [A] = 4; Undecided [U] = 3; Disagreed [D] = 2; Strongly Disagreed [SD] = 1.

### Table 2: Time of Utilization of Agricultural Information

<table>
<thead>
<tr>
<th>Time of utilization</th>
<th>SA F(%)</th>
<th>A F(%)</th>
<th>U F(%)</th>
<th>D F(%)</th>
<th>SD F(%)</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation Stage:</strong></td>
<td>When seeking for credit and loans, preparing the land, knowing the right soil type, tilling the soil, selecting good seeds, treating seed</td>
<td>645(60)</td>
<td>430(40)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.60</td>
</tr>
<tr>
<td><strong>Planting Stage:</strong></td>
<td>Time to plant, (seasons) the amount of rainfall, planting depth, crop spacing, mix or no-mix cropping</td>
<td>430(40)</td>
<td>215(20)</td>
<td>430(40)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.00</td>
</tr>
<tr>
<td><strong>Post planting Stage:</strong></td>
<td>When weeding, thinning, chemical treatments, fertilizer application, pests and diseases control</td>
<td>645(60)</td>
<td>215(20)</td>
<td>0(0)</td>
<td>215(20)</td>
<td>0(0)</td>
<td>4.20</td>
</tr>
<tr>
<td><strong>Post-harvest Stage:</strong></td>
<td>When processing, packaging, pricing, marketing, transportation</td>
<td>214(19.9)</td>
<td>537(50)</td>
<td>216(20)</td>
<td>108(10)</td>
<td>0(0)</td>
<td>3.80</td>
</tr>
<tr>
<td><strong>Harvesting Stage:</strong></td>
<td>When to harvest, how to harvest, how to store and reduce wastage</td>
<td>645(60)</td>
<td>322(30)</td>
<td>0(0)</td>
<td>108(10)</td>
<td>0(0)</td>
<td>4.40</td>
</tr>
</tbody>
</table>

Note: F(%) = Figures in parenthesis represents percentage of the total frequency. Strongly Agreed [SA] = 5; Agreed [A] = 4; Undecided [U] = 3; Disagreed [D] = 2; Strongly Disagreed [SD] = 1.
Extent of Utilization of Agricultural Information by Soybean Farmers

Table 3 revealed that soybean farmers utilized agricultural information in Niger State (mean = 3.61 and SD = .75). The result shows that information during the post-harvest stage such as how to clean and store soybean to meet standard requirements (mean = 4.10 and SD = .701) and information on effective market for soybean (mean = 4.00 and SD = .63) and Information on pest and disease control (Mean = 4.00 and SD = .634) are utilized to a great extent. However, information on soil and weather condition (mean = 3.20 and SD = .980) information on types of fertilizer use (mean = 3.50 and SD = 1.361) and information on when soybean can be harvested (mean = 3.50 and SD = 1.119) were utilized only to some extent. Nevertheless, the table showed that information utilization by soybean farmers varies from person to person.

Table 3: Extent of Agricultural Information utilized by Soybean Farmers

<table>
<thead>
<tr>
<th>Agronomic practices</th>
<th>Parameters</th>
<th>VGE F(%)</th>
<th>GE F(%)</th>
<th>SE F(%)</th>
<th>LE F(%)</th>
<th>VLE F(%)</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation Stage:</strong></td>
<td>I used information on how to till the soil</td>
<td>214(19.9)</td>
<td>646(60.1)</td>
<td>0(0)</td>
<td>215(20)</td>
<td>0(0)</td>
<td>3.80</td>
<td>.980</td>
</tr>
<tr>
<td></td>
<td>I used on soil and weather conditions for soybean production</td>
<td>107(10)</td>
<td>323(30)</td>
<td>323(30)</td>
<td>322(30)</td>
<td>0(0)</td>
<td>3.20</td>
<td>.979</td>
</tr>
<tr>
<td><strong>Planting Stage:</strong></td>
<td>I used most information on seed treatment before planting</td>
<td>324(30.1)</td>
<td>321(29.9)</td>
<td>107(10)</td>
<td>323(30)</td>
<td>0(0)</td>
<td>3.60</td>
<td>1.202</td>
</tr>
<tr>
<td></td>
<td>I used most information on seed planting depth and plan spacing</td>
<td>107(10)</td>
<td>538</td>
<td>323(30)</td>
<td>107(10)</td>
<td>0(0)</td>
<td>3.60</td>
<td>.799</td>
</tr>
<tr>
<td><strong>Post Planting Stage:</strong></td>
<td>I used most information on types of fertilizers and their applications</td>
<td>431(40.1)</td>
<td>108(10)</td>
<td>107(10)</td>
<td>429(39.9)</td>
<td>0(0)</td>
<td>3.50</td>
<td>1.361</td>
</tr>
<tr>
<td></td>
<td>I used most information on how to control pests and diseases on soybean farm</td>
<td>216(20.1)</td>
<td>643(59.8)</td>
<td>216(20.1)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.00</td>
<td>.634</td>
</tr>
</tbody>
</table>

Note: F(%) = Figures in parenthesis represents percentage of the total frequency. Very great extent (VGE) = 5; Great extent (GE) = 4; some extent (SE) = 3; little extent (LE) = 2; Very little extent (VLE) = 1.

The result of Table 3 implies that the extent to which agricultural information is utilized by soybean farmers is needs specific. This finding is consistent with Boon (1992) who affirmed that it is the extent to which information users are able to utilize information that determines its

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usefulness; because information by itself is worthless and cannot solve problems except when used or applied properly. The extent to which soybean farmers are able to utilize diverse agricultural information in their farming activities is what differentiates one farmer from the other (Bowley, 2013; Gordon and Kast, 2012; Meyer, 2015; and Zaid, 2011).

### Table 3: Extent of Agricultural Information utilized by Soybean Farmers Cont’d.

<table>
<thead>
<tr>
<th>Agronomic practices</th>
<th>Parameters</th>
<th>VGE F(%)</th>
<th>GE F(%)</th>
<th>SE F(%)</th>
<th>LE F(%)</th>
<th>VLE F(%)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvesting Stage</td>
<td>I used most information on how to harvest soybean</td>
<td>431(40.1)</td>
<td>214(19.9)</td>
<td>216(20.1)</td>
<td>107(10)</td>
<td>107(10)</td>
<td>3.70</td>
<td>1.345</td>
</tr>
<tr>
<td></td>
<td>I used most information on when soybeans can be harvested</td>
<td>324(30.1)</td>
<td>107(10)</td>
<td>430(40)</td>
<td>214(19.9)</td>
<td>0(0)</td>
<td>3.50</td>
<td>1.119</td>
</tr>
<tr>
<td>Post Harvesting Stage</td>
<td>I used most information on how to clean and store soybean grains to meet standard markets requirements</td>
<td>322(30)</td>
<td>537(50)</td>
<td>216(20.1)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.10</td>
<td>.701</td>
</tr>
<tr>
<td></td>
<td>I used most information on effective markets for soybean</td>
<td>215(20)</td>
<td>644(59.9)</td>
<td>216(20.1)</td>
<td>0(0)</td>
<td>0(0)</td>
<td>4.00</td>
<td>.63</td>
</tr>
<tr>
<td></td>
<td>I used most information on prices of soybeans.</td>
<td>214(19)</td>
<td>537(50)</td>
<td>216(20.1)</td>
<td>108(10)</td>
<td>0(0)</td>
<td>3.80</td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>Total mean and SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.61</td>
<td>.75</td>
</tr>
</tbody>
</table>

Note: F(%) = Figures in parenthesis represents percentage of the total frequency. Very great extent (VGE) = 5; Great extent (GE) = 4; some extent (SE) = 3; little extent (LE) = 2; Very little extent (VLE) = 1.

### CONCLUSION AND RECOMMENDATIONS

The importance of agriculture, particularly, in rural life cannot be overstressed and improving the quality of life of farmers will ultimately involve enhancing agricultural practices. Agricultural information utilization is very key factors not just for improving agricultural practices but for improving the quality of life of soybean farmers as well. The adequate supply of information on production requirements and the multi-dimensional benefits of soybean have led to extensive utilization of agricultural information among soybean farmers in the State. Consequently, the study has confirmed that effective utilization of agricultural information on soybean production have significantly influenced the quality of life of soybean farmers. Based on the findings of the study, the following recommendations were made:

1. The outcome of the study showed that all types of agricultural information identified in this study were utilized by soybean farmers at all the stages of farming. The need to sustain the current level of utilization should be encouraged.
2. That soybean farmers use more agricultural information within the period of preparation and harvest stage this should be encouraged and sustained so that the quality of life of soybean will not deteriorate.

3. The Ministry of Agriculture at the State and Local Government should adopt strategies that will allow for all inclusive information utilization at all stages of soybean farming in the State.

REFERENCES


